

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP 03/09360A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7. B60C23/04 B60C23/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 B60C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 044 829 A (CONTINENTAL AG) 18 October 2000 (2000-10-18) page 5 -page 8 claims 1,4	1,39-41
Y	figures 1,2	47,48
Y	DE 199 51 273 A (LUCAS VARITY GMBH) 7 June 2001 (2001-06-07) column 5 -column 7 figure 1	2-35, 42-46
Y	US 2002/044050 A1 (DAVIES SEAN PATRICK ET AL) 18 April 2002 (2002-04-18) figures 2,16,20,24	2-35, 42-46
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the International search

22 January 2004

Date of mailing of the International search report

13.02.04

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 03 006268 A (CONTINENTAL TEVES AG & CO OHG ;FENNEL HELMUT (DE); SAEGER PETER (D) 23 January 2003 (2003-01-23) page 6, line 4 - line 10 figure 1 ----	1,39-41, 47,48
A	WO 99 61265 A (LEMAN RICHARD ;AUTOMOTIVE TECHNOLOGIES LIMITE (GB)) 2 December 1999 (1999-12-02) figures 1,2 ----	1,39-41
A	US 5 827 957 A (WEHINGER HORST) 27 October 1998 (1998-10-27) column 2, line 43 - line 47 column 3 claim 2 figure 1 ----	36-38
A	WO 02 47924 A (BECKLEY JOHN PETER ;FREAKES GRAHAM MICHAEL (GB); KALININ VICTOR AL) 20 June 2002 (2002-06-20) page 6, line 1 - line 7 page 7, line 11 - line 17 figures 3,4 ----	38
A	US 6 278 363 B1 (LESTER THEODORE V ET AL) 21 August 2001 (2001-08-21) column 3, line 55 - line 63 figures 1,5,6 ----	38
Y	DE 100 29 282 A (BOSCH GMBH ROBERT) 20 December 2001 (2001-12-20) column 2 -column 4 figures 1-4 ----	47,48
A	US 6 218 935 B1 (CORCORAN PAUL T ET AL) 17 April 2001 (2001-04-17) the whole document -----	38,47,48

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP 03/09360

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-35, 39-46

Tyre air pressure is estimated by using wheel speed sensors in case of a failing wheel mounted pressure sensor

2. Claim : 36 37

Tyre temperature is estimated by using a vehicle load detecting device, a vehicle running state detecting device and an ambient-temperature detecting device in case of a failing wheel mounted temperature sensor

3. Claim : 38

Force acting on wheel is estimated by using driving state detecting device, braking state detecting device and turning state detecting device in case of a failing wheel mounted force sensor

4. Claims: 47, 48

An actuator portion (air-pressure adjusting apparatus or suspension control) is controlled on the basis of a wheel status (tyre air pressure)

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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